



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/616,317	09/14/2012	Ryosuke Taniguchi	121105	8148

38834 7590 04/26/2017
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

MALLOY, ANNA E

ART UNIT	PAPER NUMBER
----------	--------------

1722

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

04/26/2017

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RYOSUKE TANIGUCHI, TOMOHIRO KOBAYASHI,
JUN HATAKEYAMA, KENJI FUNATSU, and
MASAHIRO KANAYAMA

Appeal 2015-004368
Application 13/616,317
Technology Center 1700

Before KAREN M. HASTINGS, JAMES C. HOUSEL, and
JULIA HEANEY, *Administrative Patent Judges*.

PER CURIAM

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1–3, 5–8, and 11–19 under 35 U.S.C. § 103(a) as unpatentable over at least the basic combination of Momose (JP 2008-095087; published Apr. 24, 2008; as translated) with Tanaka (US 2011/003251 A1; published Jan. 6, 2011).¹ An oral hearing was conducted April 18, 2017. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

¹ While the Examiner applied additional references to claims 5, 7, 8, and 19 (Final Action 5–10; Ans. 5–10), Appellants' arguments are all directed to the basic combination of Momose and Tanaka (App. Br. 9–11).

Upon consideration of the evidence on this record and each of Appellants' contentions, we find that the preponderance of evidence on this record supports the Examiner's conclusion that the subject matter of Appellants' claims is unpatentable over the applied prior art.² We sustain the Examiner's § 103 rejections based on the findings of fact, conclusions of law, and rebuttals to arguments expressed by the Examiner in the Final Action and the Answer.

We add the following for emphasis.

Appellants have not disputed the Examiner's factual findings with respect to the applied references (*generally* App. Br.). Rather, Appellants argue that there is no reason to use the known onium salt photoacid generator (PAG) exemplified in Tanaka as a second PAG in Momose (App. Br. 11; Reply Br. 3). We have no doubt, however, that the Examiner has established a *prima facie* case of obviousness for the use of two known photoacid generators (PAGs), including the specific onium salt PAG exemplified in Tanaka, in the known resist composition exemplified in Momose for reasons set out in the Answer (Ans. 2–5; 12, 13; App. Br. 10, 11; Reply Br. 3, 4). *See also, In re Kerkhoven*, 626 F.2d 846, 850, (CCPA 1980) ("It is generally considered *prima facie* obvious to combine two compounds each of which is taught by the prior art to be useful for the same

² See claim 1, reproduced in the Claims App'x., App. Br. 16, 17, for details thereof. Appellants argue all the claims as a group, including those separately rejected (e.g., App. Br. 15). Accordingly, all the claims stand or fall with claim 1.

purpose, in order to form a composition which is to be used for the very same purpose.”).

“Once a *prima facie* case of obviousness has been established, the burden shifts to the applicant to come forward with evidence of nonobviousness to overcome the *prima facie* case.” *In re Huang*, 100 F.3d 135, 139 (Fed. Cir. 1996). As indicia of obviousness or nonobviousness, such secondary considerations as commercial success, long felt but unresolved needs, copying by others, unexpected results, etc. may be relevant to the question of obviousness or nonobviousness. *Graham v. John Deere*, 383 U.S. 1, 17–18 (1966). Here, Appellants allege unexpected results over the prior art applied due to the claimed combination of “a special polymer, a photoacid generator, and an onium salt, as recited in claims 1, 18, and 19,” relying upon test results presented in a Declaration by co-inventor Ryosuke Taniguchi filed Dec. 19, 2013 (App. Br. 11).

The burden of showing unexpected results rests on the person who asserts them by establishing that the difference between the claimed invention and the closest prior art was an unexpected difference. *See In re Klosak*, 455 F.2d 1077, 1080 (CCPA 1972). Further, it is well established that the showing of unexpected results must be commensurate in scope with the claims. *See In re Peterson*, 315 F.3d 1325, 1330–331 (Fed. Cir. 2003). As the Examiner explains, Appellants’ proffered evidence is not sufficient to satisfy their burden (Ans. 17–19).

In the appeal before us, it is questionable whether the results shown by the Taniguchi Declaration data are properly characterized as unexpected. *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1371 (Fed. Cir. 2007) (“[A]ny superior property must be unexpected to be considered as evidence of non-

obviousness”). We here emphasize that nowhere in the Specification do the Appellants characterize the combination of onium component D with component B as achieving results that are unexpected. It is only the Appellants’ attorney in the Briefs who describes these results as unexpected. Declarant Taniguchi merely describes the results as “there can be obtained good effects” (Taniguchi 9). Indeed, the addition of component D was described as a preferred (i.e., optional) embodiment (Spec. 9:7–8; *see also*, claim 1 as originally filed). Under these circumstances, we view this Declaration data as merely representing the optimization of the addition of a known onium salt PAG with another known PAG which would have been within the skill of and, thus, obvious to the artisan.

Furthermore, Appellants have not shown how the single tested inventive sample (Run 3) is commensurate in scope with the claims. For example only, each independent claim recites a “positive resist composition comprising” components (A) through (D), thus permitting the inclusion of other unrecited components; each component may be present in any amount; and the photoacid generator component (B) and solvent component (C) are generic and, thus, include very large numbers of species.³

In addition, we emphasize that, although secondary considerations such as unexpected results must be taken into account, they do not

³ We appreciate Appellants’ position that the closest prior art for comparison is not a combination of Momose and Tanaka (Reply Br. 5). However, in light of the deficiencies outlined in the Decision with Appellants’ proffered evidence of unexpected results, the Examiner’s statement bridging pp. 14–15 of the Answer criticizing Run 1 as “not commensurate in scope with the rejection” is harmless error.

necessarily control the obviousness conclusion. *See Sud-Chemie, Inc. v. Multisorb Technologies, Inc.*, 554 F.3d 1001, 1009 (Fed. Cir. 2009) (“[E]vidence of unexpected results and other secondary considerations will not necessarily overcome a strong prima facie showing of obviousness”); *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d at 1372 (“[T]his secondary consideration does not overcome the strong showing of obviousness in this case. Although secondary considerations must be taken into account, they do not necessarily control the obviousness conclusion.”); *see also Newell Cos. v. Kenney Mfg. Co.*, 864 F.2d 757, 769 (Fed. Cir. 1988).

Here, the case of obviousness established by the Examiner is so strong that Appellants’ alleged unexpected results are ultimately insufficient. As explained by the Examiner, Tanaka describes that the addition of an onium PAG encompassed by the claims as resulting in the “obtainment of rectangular pattern lines in profile with a higher resolution” and a “higher sensitivity” (Tanaka ¶ 158; Ans. 12). Likewise, Momose teaches that its polymer provides a rectangular pattern line (Momose abstract, ¶¶ 7–10; Ans. 17, 18). Momose further teaches multiple PAGs may be used and that an onium salt PAG is a preferred PAG (Momose ¶¶ 260, 261). Thus, the obviousness conclusion is strong and the results are expected, not unexpected (e.g., Ans. 19).

The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED